

AMENDMENTS TO THE CLAIMS

1. (Original) A method of adhering a first component to a second component comprising the steps of:

melting a reactive hot melt composition, having a softening point of at least 50°C, and being curable on heating to a temperature of 150°C, the composition comprising a blend of

(a) a macrocyclic oligomer having a softening point of at least 50°C, containing at least one ring having eight or more atoms, and being able to undergo decyclization at a temperature of 150°C or more, to produce a polymerizable species, wherein each cyclic oligomer molecule provides two or more structural repeat units of the same or different formula for the resulting polymer, and

(b) a thermoplastic resin;

contacting the first and second components with the melted composition to form an initial bond between the components; and
applying heat to cure the composition.

2. (Original) A method of adhering a first component to a second component comprising the steps of:

positioning a sheet of a reactive hot melt composition, having a softening point of at least 50°C, and being curable on heating to a temperature of 150°C between the first and second components to form a sandwich layer, wherein the composition comprised a blend of

(a) a macrocyclic oligomer having a softening point of at least 50°C, containing at least one ring having eight or more atoms, and being able to undergo decyclization at a temperature of 150°C or more, to produce a polymerizable species, wherein each cyclic oligomer molecule provides two or more structural repeat units of the same or different formula for the resulting polymer, and

(b) a thermoplastic resin;

melting the sandwich layer to form an initial bond between the components;
and
applying heat to cure the composition.

3. (Currently Amended) A method as claimed in Claim 1 ~~or Claim 2~~, wherein the thermoplastic resin comprises a polymer capable of reacting with the cyclic oligomer to produce a cross-linked thermoset polymer.

4. (Original) A method as claimed in Claim 3 wherein the polymer capable of reacting with the cyclic oligomer is a material capable of cross-esterification.

5. (Original) A method as claimed in Claim 4 wherein the polymer capable of reacting with the cyclic oligomer is a polymer containing glycidyl methacrylate groups.

6. (Currently Amended) A method as claimed in Claim 1 ~~or Claim 2~~, wherein the thermoplastic resin comprises a random interpolmer of ethylene with at least one additional comonomer.

7. (Original) A method as claimed in Claim 6, wherein the comonomer is methylacrylate, methylmethacrylate, ethylacrylate, ethylmethacrylate, butylacrylate, butylmethacrylate, vinyl acetate, maleic anhydride, and/or glycidyl methacrylate.

Claim 8 (Cancelled).

9. (Currently Amended) A method as claimed in ~~any one of the preceding Claims~~ Claim 1, wherein the thermoplastic resin comprises a polyester.

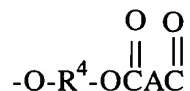
10. (Currently Amended) A method as claimed in ~~any one of the preceding Claims~~ Claim 1, wherein the composition additionally comprises a polymerisation catalyst.

11. (Original) A method as claimed in Claim 10, wherein the catalyst comprises at least one of a tin compound and or a titanium compound.

12. (Currently Amended) A method as claimed in ~~Claim 10 or~~ Claim 11, wherein the catalyst is present in an amount from 0.1 to 1 mole percent based on the macrocyclic oligomer.

13. (Currently Amended) A method as claimed in ~~any one of the preceding Claims~~ Claim 1, wherein the macrocyclic oligomer is a macrocyclic polycarbonate, polyester, polyimide, polyetherimide, polyphenylene ether-polycarbonate co-oligomer, polyetherimide-polycarbonate co-oligomer or a blend of two or more thereof, or a method or co-oligomer prepared therefrom.

14. (Original) A method as claimed in Claim 13, wherein the macrocyclic oligomer contains a structural repeat unit corresponding to the formula:



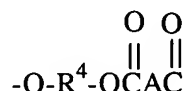
wherein each R⁴ independently is an alkylene, a cycloalkylene, a monooxyalkylene or a polyoxyalkylene group and each A independently is a divalent aromatic or alicyclic group.

15. (Original) A method as claimed in Claim 13, wherein the macrocyclic oligomer contains structural repeat units of one of 1,4-butylene terephthalate, 1,3-propylene terephthalate, 1,4-cyclohexylene dimethylene terephthalate, ethylene terephthalate, 1,2-ethylene 2,6-naphthalene dicarboxylate or wherein the macrocyclic co-oligomer comprising two or more of the said structural repeat units.

Claim 16 (Cancelled).

17. (Original) A method as claimed in Claim 1, wherein the composition has a softening point of at least 50°C, and is curable on heating to a temperature of 150°C, the composition comprising a blend of

- (a) a macrocyclic oligomer having a softening point of at least 50°C, containing a structural repeat unit corresponding to the formula:



wherein each R⁴ independently is an alkylene, a cycloalkylene, a monooxyalkylene or a polyoxyalkylene group and each A independently is a divalent aromatic or alicyclic group, wherein the oligomer is able to undergo decyclization at a temperature of 150°C or more, to produce a polymerizable species, and

- (b) a thermoplastic resin comprising a random interpolymers of ethylene with at least one additional comonomer selected from methylacrylate, methylmethacrylate, ethylacrylate, ethylmethacrylate, butylacrylate, butylmethacrylate, vinyl acetate, maleic anhydride, and/or glycidyl methacrylate.

18. (Original) A method as claimed in Claim 17, wherein the composition additionally comprises a polyester.

19. (Currently Amended) A method as claimed in ~~claim 17 or~~ Claim 18, wherein the composition additionally comprises a tin or titanium polymerisation catalyst.

Claim 20 (Cancelled).

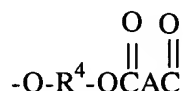
21. (Original) A reactive hot melt composition, having a softening point of at least 50°C, and being curable on heating to a temperature of 150°C, the composition comprising a blend of

- (a) a macrocyclic oligomer having a softening point of at least 50°C, containing at least one ring having eight or more atoms, and being able to undergo

decyclization at a temperature of 150°C or more, to produce a polymerizable species, wherein each cyclic oligomer molecule provides two or more structural repeat units of the same or different formula for the resulting polymer, and
(b) a thermoplastic resin

22. (Currently Amended) A reactive hot melt composition, ~~having a softening point of at least 50°C, and being curable on heating to a temperature of 150°C, the composition comprising a blend of~~ wherein

(a) ~~a~~ the macrocyclic oligomer having a softening point of at least 50°C, containings a structural repeat unit corresponding to the formula:



wherein each R⁴ independently is an alkylene, a cycloalkylene, a monooxyalkylene or a polyoxyalkylene group and each A independently is a divalent aromatic or alicyclic group, ~~wherein the oligomer is able to undergo decyclization at a temperature of 150°C or more, to produce a polymerizable species, and~~

(b) ~~a~~ the thermoplastic resin comprisings a random interpolymers of ethylene with at least one additional comonomer selected from methylacrylate, methylmethacrylate, ethylacrylate, ethylmethacrylate, butylacrylate, butylmethacrylate, vinyl acetate, maleic anhydride, and/or glycidyl methacrylate.

23. (Original) The composition as claimed in Claim 22, additionally comprising a polyester.

24. (Currently Amended) The composition as claimed in ~~claim 22 or~~ Claim 23, additionally comprising a tin or titanium polymerisation catalyst.